

Types and causes of liquidity risk finance essay



**ASSIGN
BUSTER**

“ In finance, liquidity risk is the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss (or make the required profit).”

OR

Liquidity risk is the current and prospective risk to earnings or capital arising from a bank’s inability to meet its obligations when they come due without incurring unacceptable losses. Liquidity risk includes the inability to manage unplanned decreases or changes in funding sources. Liquidity risk also arises from the failure to recognize or address changes in market conditions that affect the ability to liquidate assets quickly and with minimal loss in value.

2. 1-Types of Liquidity risk:

Asset liquidity – Due to the lack of liquidity in market an asset can not be sold it is basically subset of market risk. This can be done by:

Widening bid/offer spread

Making explicit liquidity reserves

Lengthening holding period for Vary calculations

Funding liquidity – Risk that liability:

Cannot be met when they fall due

Can only be met at an uneconomic price

Can be name-specific or systemic

2. 2- Causes of Liquidity Risk:

There are many causes of liquidity risk liquidity risk actually arises when the one party wants to trading an asset cannot do it because in the market no one wants to trade that asset . The persons who are about to hold or currently hold the asset and want to trade that asset then liquidity risk become partial important to them as it affects their ability to do business.

From drop of price to zero is very different from that appearance of liquidity risk. In the case when the assets price drop to zero then market said that asset is valueless. On the other hand when one party found that the other party is not interested in buying and selling of an asset then it become a big problem for the participant of a market to find the other interested party. So we can say that in the emerging markets or low volume markets the risk of liquidity is higher.

Due to uncertain liquidity the liquidity risk is known as a financial risk.

When the credit rating falls the institution may lose its liquidity, in this way rapid unexpected cash outflows, or as a result of this happening the counterparties may avoid the business of buying and selling with or borrowing the loan to the institutions. A firm is also exposed to liquidity risk if markets on which it depends are subject to loss of liquidity. The firm is also seen to the risk of liquidity when the markets in they depend are under the liquidity loss.

Liquidity risks tend to compound other risks. If a trading organization has a position in an illiquid asset, its limited ability to liquidate that position at short notice will compound its market risk. Let us suppose a firm has a cash

<https://assignbuster.com/types-and-causes-of-liquidity-risk-finance-essay/>

flows offsetting on a given day of with two different counter parties. If the counter party do not make the payment and become a payment defaults. In this way firm will have to make the cash from some other sources in order to make payment. Credit risk is the risk arises due to the liquidity.

A position can be hedged against market risk but still entail liquidity risk. This is true in the above credit risk example-the two payments are offsetting, so they entail credit risk but not market risk. Another example is the 1993 Metallgesellschaft debacle. Futures contracts were used to hedge an Over-the-counter finance OTC obligation. It is debatable whether the hedge was effective from a market risk standpoint, but it was the liquidity crisis caused by staggering margin calls on the futures that forced Metallgesellschaft to unwind the positions.

As compared to the risks like market, credit and other risks the liquidity risk is also has to be managed. It is impossible to isolate the liquidity risk because it has the tendency to compound the other risks overall the most simple circumstances. Liquidity risk does not exit in the comprehensive metrics. In order to assessed the liquidity risk the certain techniques of asset liability management can be applied on a day by day basis. A simple test is conducted for the liquidity risk in ordered to see the net cash flows. Any day which shows a sizeable negative cash flow is of concern.

Analyses such as these cannot easily take into account contingent cash flows, such as cash flows from derivatives or mortgage-backed securities. If an organization's cash flows are largely contingent, liquidity risk may be

assessed using some form of scenario analysis. A general approach using scenario analysis might entail the following high-level steps:

Construct multiple scenarios for market movements and defaults over a given period of time

Assess day-to-day cash flows under each scenario.

Because balance sheets differ so significantly from one organization to the next, there is little standardization in how such analyses are implemented.

Regulators are primarily concerned about systemic and implications of liquidity risk.

2. 3- Liquidity gap

The liquidity gap is the net liquid assets of a firm.

As a static measure of liquidity risk it gives no indication of how the gap would change with an increase in the firm's marginal funding cost.

2. 4- Liquidity risk elasticity:

Culp denotes the change of net of assets over funded liabilities that occur when the liquidity premium on the bank's marginal funding cost rises by a small amount as the liquidity risk elasticity. For banks this would be measured as a spread over libor, for nonfinancial the LRE would be measured as a spread over commercial paper rates.

Problems with the use of liquidity risk elasticity are that it assumes parallel changes in funding spread across all maturities and that it is only accurate for small changes in funding spreads.

2. 5- Measures of Asset Liquidity:

Following are the measures of asset liquidity.

2. 5. 1. Bid-offer spread:

The bid-offer spread is used by market participants as an asset liquidity measure. To compare different products the ratio of the spread to the product's mid price can be used. The smaller the ratio the more liquid the asset is.

This spread is comprised of operational costs, administrative and processing costs as well as the compensation required for the possibility of trading with a more informed trader.

2. 5. 2. Market depth:

Hachmeister refers to market depth as the amount of an asset that can be bought and sold at various bid-ask spreads. Slippage is related to the concept of market depth. Knight and Satchell mention a flow trader needs to consider the effect of executing a large order on the market and to adjust the bid-ask spread accordingly. They calculate the liquidity cost as the difference of the execution price and the initial execution price.

2. 5. 3. Immediacy:

Immediacy refers to the time needed to successfully trade a certain amount of an asset at a prescribed cost.

2. 5. 4. Resilience:

Hachmeister identifies the fourth dimension of liquidity as the speed with which prices return to former levels after a large transaction. Unlike the other measures resilience can only be determined over a period of time.

<https://assignbuster.com/types-and-causes-of-liquidity-risk-finance-essay/>

2. 6- Managing Liquidity Risk

2. 6. 1-Liquidity-adjusted value at risk:

Liquidity-adjusted VAR incorporates exogenous liquidity risk into Value at Risk. It can be defined as VAR + ELC (Exogenous Liquidity Cost). The ELC is the worst expected half-spread at a particular confidence level.

Another adjustment is to consider VAR over the period of time needed to liquidate the portfolio. VAR can be calculated over this time period. The BIS mentions “... a number of institutions are exploring the use of liquidity adjusted-VAR, in which the holding periods in the risk assessment are adjusted by the length of time required to unwind positions.”

2. 6. 2-Liquidity at risk:

Greenspan (1999) discusses management of foreign exchange reserves. The Liquidity at risk measure is suggested. A country's liquidity position under a range of possible outcomes for relevant financial variables (exchange rates, commodity prices, credit spreads, etc.) is considered. It might be possible to express a standard in terms of the probabilities of different outcomes. For example, an acceptable debt structure could have an average maturity averaged over estimated distributions for relevant financial variables in excess of a certain limit. In addition, countries could be expected to hold sufficient liquid reserves to ensure that they could avoid new borrowing for one year with certain ex ante probability, such as 95 percent of the time.

2. 6. 3-Scenario analysis-based contingency plans:

The FDIC discuss liquidity risk management and write “ Contingency funding plans should incorporate events that could rapidly affect an institution’s liquidity, including a sudden inability to securitize assets, tightening of collateral requirements or other restrictive terms associated with secured borrowings, or the loss of a large depositor or counterparty.” Greenspan’s liquidity at risk concept is an example of scenario based liquidity risk management.

2. 6. 4-Diversification of liquidity providers:

If several liquidity providers are on call then if any of those providers increases its costs of supplying liquidity, the impact of this is reduced. The American Academy of Actuaries wrote “ While a company is in good financial shape, it may wish to establish durable, ever-green (i. e., always available) liquidity lines of credit. The credit issuer should have an appropriately high credit rating to increase the chances that the resources will be there when needed.”

2. 6. 5-Derivatives:

The five derivatives that are discuss by bhaduri, meissner yon created specifically for hedging liquidity risk.

Withdrawal option: A put of the illiquid underlying at the market price.

Bermudan-style return put option: Right to put the option at a specified strike.

Return swap: Swap the underling’s return for LIBOR paid periodically.

Return swaption: Option to enter into the return swap.

Liquidity option: “ Knock-in” barrier option, where the barrier is liquidity metric.

other

Funding sources are abundant and provide a competitive cost advantage.

Funding is widely diversified. There is little or no reliance on wholesale funding sources or credit-sensitive funds providers.

Market alternatives exceed demand for liquidity, with no adverse changes expected.

Capacity to augment liquidity through asset sales and/or securitization is strong and the Bank has an established record in accessing these markets.

The volume of wholesale liabilities with embedded options is low.

The Bank is not vulnerable to funding difficulties should a material adverse change occur in market perception.

Support provided by the parent company is strong.

Earnings and capital exposure from the liquidity risk profile is negligible.

-Quantity of Liquidity Risk Indicators:

In order to assess the quantity of liquidity risk the following indicator should be used. Every characteristic is not necessary to be demonstrated.

2. 7. 1-Low:

The sources of funding are abundant and provide a advantage of competitive cost.

Funding is generally expanded. There is little or no reliance on wholesale funding sources or other credit-sensitive funds providers. On the sources of wholesale funding or others providers of credit sensitive fund in it there is no trust.

The demand for liquidity goes above by the market alternatives and there are no any expected changes.

Capacity to augment liquidity through asset sales and/or securitization is strong and the Bank has an established record in accessing these markets.

The wholesale liabilities have a low volume with fixed options.

The Bank is not weak to funding difficulties should a material adverse change occur in market perception.

The parent company provides the support which is strong.

Earnings and capital exposure from the liquidity risk profile is negligible.

2. 7. 2-Moderate

The funding sources which are sufficient are available that provides a liquidity which is cost effective.

Funding is generally expanded, by a few providers that may share their common objectives and their economic influences, but no significant

concentrations. The wholesale funding is clear and it has a modest reliance. The market alternatives that is available in order to meet the demand for liquidity on reasonable terms.

The Bank possesses the potential capacity to expand liquidity through asset sales and/or securitization. The bank has a modest experience in order to access these markets

Some wholesale funds contain embedded options, but potential impact is not significant.

The Bank is not excessively vulnerable to funding difficulties should a material. the adequate support is provided by the parent company.

Earnings or capital exposure from the liquidity risk profile is manageable.

2. 7. 3-High:

Funding sources and liability structures suggest current or potential difficulty in maintaining long-term and cost-effective liquidity.

Borrowing sources may be concentrated in a few providers or providers with common investment objectives or economic influences. A significant reliance on wholesale funds is evident.

Liquidity needs are increasing, but sources of market alternatives at reasonable terms, costs, and tenors are declining.

The Bank exhibits little capacity or potential to augment liquidity through asset sales or securitization. A lack of experience accessing these markets or unfavorable reputation may make this option questionable.

Material volumes of wholesale funds contain embedded options. The potential impact is significant.

The Bank's liquidity profile makes it vulnerable to funding difficulties should a material adverse change occur.

Parent company provides a little or unknown support.

Potential exposure to loss of earnings or capital due to high liability costs or unplanned asset reduction may be substantial.

Liquidity risk management

Achieving best practice

Managing liquidity risk is often about applied common sense, like operational risk it requires a firm-wide approach and this places a high demand on the right processes and procedures.

Any management information system used to mitigate liquidity risk should be:

Accurate

The best way of encouraging accuracy is to keep reporting simple.

Communicative

Report and information should speak plainly.

Regular

Timely reporting allows managers to judge changes in the market and their organization's liquidity profile.

Comprehensive

Must reflect your organizational reality, such as different entities, jurisdictions and regulations.

Realistic

Scenario must be rigorous if risk is to be identified in real situations.

2. 8-Quality of Liquidity Risk Management

The following indicators, as appropriate, should be used when assessing the quality of liquidity risk management.

2. 8. 1-Strong

The policies are approved by the board and communicate guidelines effectively for the liquidity risk management and responsibilities are designated.

The liquidity risk management process is effective in identifying, measuring, monitoring, and controlling liquidity risk. The process of liquidity risk management is effective for identifying liquidity risk, for measuring, monitoring, and controlling the liquidity risk.

A sound culture reflects that has proven

Liquidity risk is fully understood by the management in all the aspects.

Management anticipates and responds well to changing market conditions.

<https://assignbuster.com/types-and-causes-of-liquidity-risk-finance-essay/>

The contingency funding plan is well-developed, effective and useful. The plan incorporates reasonable assumptions, scenarios, and crisis management planning, and is tailored to the needs of the institution.

Management information systems focus on significant issues and produce timely, accurate, complete, and meaningful information to enable effective management of liquidity.

Internal audit is comprehensive and effective.

The scope and frequency are reasonable.

2. 8. 2-Satisfactory

Policies are approved by the Board which communicate adequately guidance for liquidity risk management and responsibilities are assigned.

There may be a minor weakness present.

The liquidity risk management process is generally effective in identifying, measuring, monitoring, and controlling liquidity.

There may be minor weaknesses given the complexity of the risks undertaken, but these are easily corrected.

. the key aspects of liquidity risk are reasonably understood by the management.

Management adequately responds to changes in market conditions when changes occur in the market conditions the management respond adequately.

The plan of contingency funding is adequate.

The plan is current, reasonably addresses most relevant issues, and contains an adequate level of detail including multiple scenario analysis.

The plan may require minor refinement.

Management information systems adequately capture concentrations and rollover risk, and are timely, accurate, and complete.

Recommendations are minor and do not impact effectiveness.

Internal audit is reasonable.

Any weaknesses are minor and do not impair effectiveness or reliance on audit findings.

2. 8. 3-Weak

The Board has approved policies which are insufficient or incomplete.

In one or more material respects the policy is incomplete

. the process of liquidity risk management is useless in identifying, monitoring and controlling the liquidity risk

This may be true in one or more material respects, given the complexity of the risks undertaken. The liquidity risk does not fully understand by the management. In the conditions when the market changes the management does not take any timely or suitable actions and do not participate. .

The contingency funding plan is inadequate or nonexistent.

The plan may not consider cost-effectiveness or availability of funds in a non-investment grade or CAMEL “ 3” environment.

The information systems of management are deficient. The plan may be there but they do not adopted by the institutions, it is not reasonable, or they are not implemented as it should be.

The information which is material may be a incomplete or lacking.

Due to one or more material deficiencies the internal auditor coverage is missing or useless.

2. 9-Common problems and misconceptions:

Liquidity risk is one of the least understood and most underestimated risks that financial markets participants are exposed to.

Reasons for this include:

- Under normal market conditions, liquidity problems are not observed
- Liquidity risk does not lend itself to readily usable measures
- Despite specific BIS recommendations, liquidity risk management is left out of capital adequacy calculations due to a lack of control and regulation
- ‘ Liquidity management’ is often confused with ‘ liquidity risk management’
- Market and credit risk management focus on assets, while liquidity risk can stem from liabilities as well

Liquidity risk is also different in nature to market and credit risk and needs to be thought of differently;

- Normal markets analyses (expected or going-concern situations) are insufficient; liquidity risk can only be understood with scenario-based stress testing
- Historical measures of liquidity are irrelevant; prospective views are essential
- Liquidity risk cannot be readily hedged, and can only be mitigated against through rigorous monitoring and controls
- The pricing of many instruments does not properly charge for liquidity
-